UNITED STATES DEPARTMENT OF AGRICULTURE
Consumer and Marketing Service
Cotton Division
Washington, D. C. 20250

COTTON FIBER AND PROCESSING TEST RESULTS

CROP OF 1966

CT (1966) 5

October 21, 1966

COTTON FIBER AND PROCESSING TEST RESULTS, CROP OF 1966

This is the fifth of a series of reports on the fiber and processing test results on the 1966 cotton crop. These reports are issued twice each month during the harvesting season and are summarized in a comprehensive report at the end of the season. This 1966 group of reports will give data on the same subject as AIB 309, "Annual Cotton Quality Survey, Summary of Results of Fiber and Processing Tests from Selected Production Areas, Crop of 1965," dated April 1966.

Recent modernization of testing equipment has resulted in slight changes in test levels for some items. To compare previous years' results to those reported for the 1966 crop, the following adjustments should be made:

1. Yarn imperfections for previous years x 0.6 = 1966 levels.

2. Spinning potential yarn no. for previous years x 1.1 = 1966 levels.

An explanation of these changes is contained in the first report of this series, CT (1966) 1, dated August 26, 1966.

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Prepared in the Standards and Testing Branch
Cotton Division
Consumer and Marketing Service
Memphis, Tennessee

Discussion of Test Results

Cotton Division laboratories of the Consumer and Marketing Service report that short staple samples tested to date from the Southwestern Area show fibers with about the same length, length distribution and fiber strength as for the same period last year. The micronaire readings for this season's short staple samples are lower than for the same period last season. Shirley Analyzer nonlint content and picker and card waste are higher than last year. Yarns from these samples show the same skein strength, with higher appearance indices and lower imperfection counts than a year ago.

Medium staple samples from the Southeastern Area tested to date show fibers with the same length and about the same length distribution as last season. Micronaire readings and both the zero gage and 1/8-inch gage fiber strength average higher than a year ago. Shirley Analyzer nonlint content and picker and card waste remain approximately on the same levels as a year ago. Yarns from these samples show about the same strength, with higher appearance indices, but also with higher imperfection counts.

South Central Area medium staple samples show about the same fiber length and length distribution as last season. Micronaire readings and fiber strength are higher than last year. Shirley Analyzer nonlint content and picker and card waste remain on about the same levels as a year ago. Yarns from these samples show essentially the same strength, with higher appearance indices, but also with higher imperfection counts.

Medium staple samples from the Southwestern Area show fibers with virtually the same length and length distribution and fiber strength as a year ago. Micronaire reading, Shirley Analyzer nonlint content, and picker and card waste are higher than last year. Yarns from these samples show approximately the same strength, with higher appearance indices and lower imperfection counts than last year.

Table 1.--Cotton: Averages of fiber and processing tests from selected gin points in the United States through October 14, 1966 1/

	Lots tested	Fiber test results						Processing test results			
		Fibrograph		Micronaire	Fiber strength		Shirley Analyzer	Picker & card waste	Yarn quality		
		2.5% span	50/2.5 unif	fineness	Zero Gage	1/8" Gage	nonlint		Skein strength	Appearance	Imperfections
	No.	Inches	Pct.	Rdg.	Mpsi	G/tex	Pct.	Pct.	Lbs.	Index	No. 2/
Short staple:											
Southwest:											
1965	25	.94	46	4.5	82	20.1	2.5	5.0	91	110	21
1966	13	.93	46	4.3	81	20.4	3.2	6.0	91	116	18
Medium staple:											
Southeast:											
1965	85	1.07	45	4.4	78	21.1	2.6	4.9	104	107	15
1966	49	1.07	46	4.9	83	22.7	2.7	5.3	103	111	20
South Central:											
1965	126	1.07	46	4.7	83	21.8	2.6	5.0	106	110	16
1966	28	1.08	47	5.0	85	23.0	2.4	4.8	107	115	18
Southwest:											
1965	45	1.05	46	4.4	84	22.0	2.4	4.9	106	109	19
1966	32	1.06	46	4.7	85	21.9	3.0	5.8	107	118	15
Significant difference 3/		0.02	2	0.2	2	0.5	0.5	0.5	4	5	2

1/ Based on a limited number of samples of modal quality.
2/ Adjusted to 1966 level (Imperfection No. x 0.6) to reflect cleaning action of card crusher rolls.
3/ Minimum difference considered to be significant for comparison in this table. These guides are based upon averages of a number of lots and are not applicable to individual samples.

Table 2.--Cotton, American upland short staple: Quality characteristics by production areas, crop of 1966

Area	Southwestern		
State	Central Texas		
Production area	Forney	Itasca	Taylor
Predominant variety	Lankart		Lankart 57
Percentage of variety at gin	95	100	95
Triweekly sampling	First	First	Second
RAW COTTON QUALITY			
Grade .....designation	SLMLtSp	SLMLtSp	LMLtSp
Staple length .....inches	15/16	15/16	29/32
Fiber length (Digital Fibrograph):			
2.5% span length.....inches	.90	.90	.87
Uniformity ratio (50/2.5).percent	46	46	46
Fiber fineness and maturity:			
Micronaire .....reading	5.0	5.0	4.6
Fiber strength and elongation:			
Zero gauge strength .....1,000 psi	78	77	81
Zero gauge strength .....grams/tex	38.7	38.2	40.2
⅛-inch gauge strength ..grams/tex	20.0	19.6	20.3
⅛-inch gauge elongation...percent	7.2	7.6	6.6
Shirley Analyzer:			
Visible waste .....percent	2.7	2.2	1.6
Total visible & invisible..percent	4.3	3.8	3.6
Color of raw cotton:			
Reflectance .....Rd	69.1	69.1	64.9
Yellowness .....+b	9.3	9.6	9.0
Code .....number	453	453	553
PROCESSING RESULTS:			
Picker and card waste.....percent	6.9	6.6	7.4
Yarn skein strength:			
8s (73.8 tex) .....pounds	281	274	269
22s (26.8 tex) .....pounds	86	81	82
Average break factor.....	2070	1987	1978
Yarn skein elongation:			
8s (73.8 tex) .....percent	6.6	6.7	6.3
22s (26.8 tex) .....percent	5.9	5.3	5.1
Yarn appearance:			
8s (73.8 tex) .....grade	B+	B+	B+
22s (26.8 tex) .....grade	B	B+	B
Average yarn appearance.....index	115	120	115
Yarn imperfections: 1/			
8s (73.8 tex) .....number	36	29	32
22s (26.8 tex) .....number	28	18	20
Spinning potential...2/..Yarn number	37	32	-

1/ Level for previous years x 0.6 = 1966 level.
2/ Level for previous years x 1.1 = 1966 level.

Table 3.--Cotton, American upland medium staple: Quality characteristics by production areas, crop of 1966

Area	Southeastern			
State	Alabama			
Production area	Ashford		Atmore	Belle Mina
Predominant variety	Car. Queen	Mxd-Mnly	Coker 100	Car. Queen
Percentage of variety at gin	85	Dix.King II:	95	100
Triweekly sampling	Second	Second	Second	First
RAW COTTON QUALITY				
Grade .....designation	SLMLtSp	SLM	SLM	SLMLtSp
Staple length .....inches	1-1/16	1-1/32	1-1/16	1-1/32
Fiber length (Digital Fibrograph):				
2.5% span length.....inches	1.05	1.02	1.09	1.11
Uniformity ratio (50/2.5).percent	45	44	46	45
Fiber fineness and maturity:				
Micronaire .....reading	5.4	5.0	4.7	5.3
Fiber strength and elongation:				
Zero gauge strength .....1,000 psi	84	83	80	87
Zero gauge strength .....grams/tex	41.4	41.1	39.6	43.2
⅛-inch gauge strength ..grams/tex	22.6	22.5	21.8	23.2
⅛-inch gauge elongation...percent	4.5	5.5	4.7	5.7
Shirley Analyzer:				
Visible waste .....percent	2.8	2.6	2.5	1.8
Total visible & invisible..percent	3.6	3.3	3.2	2.6
Color of raw cotton:				
Reflectance .....Rd	70.0	71.3	73.3	71.5
Yellowness .....+b	9.6	8.8	8.6	9.8
Code .....number	403	403	402	403
PROCESSING RESULTS:				
Picker and card waste.....percent	6.4	5.8	5.6	4.8
Yarn skein strength:				
22s (26.8 tex) .....pounds	96	92	102	102
50s (11.8 tex) .....pounds	31	29	36	33
Average break factor.....	1831	1737	2022	1947
Yarn skein elongation:				
22s (26.8 tex) .....percent	5.6	5.0	6.0	6.0
50s (11.8 tex) .....percent	4.0	3.8	5.0	4.4
Yarn appearance:				
22s (26.8 tex) .....grade	B	B	B	B
50s (11.8 tex) .....grade	C+	C+	C+	C+
Average yarn appearance.....index	105	105	105	105
Yarn imperfections: 1/				
22s (26.8 tex) .....number	17	17	21	20
50s (11.8 tex) .....number	13	11	16	14
Spinning potential...2/..Yarn number	-	-	-	59

1/ Level for previous years x 0.6 = 1966 level.
2/ Level for previous years x 1.1 = 1966 level.

Table 3.--Cotton, American upland medium staple: Quality characteristics by production areas, crop of 1966--Continued

Southeastern Alabama					
Deatsville	Decatur	Goshen	Harpersville	La Fayette	Montgomery
Car. Queen	Rex Sm L	Auburn 56	DPL Sm L	Coker 100	Auburn 56
100	95	75	70	75	100
Second	First	Second	First	Second	First
SLM	MLtSp	SLM	SLMLtSp	M	M
1-1/16	1-1/32	1-1/16	1-1/32	1-1/16	1-1/32
1.09	1.02	1.05	1.05	1.11	1.00
45	45	46	46	45	45
4.7	5.2	5.0	4.7	4.5	4.6
78	80	79	80	81	83
38.5	39.6	39.1	39.5	40.3	41.3
22.7	19.8	22.2	22.3	21.7	22.3
5.1	5.2	5.2	5.8	5.1	6.6
1.6	1.2	1.5	3.5	1.2	1.7
2.3	1.9	2.1	4.2	1.7	2.6
73.5	71.7	72.5	71.8	74.5	74.0
8.9	9.5	8.9	9.2	9.2	8.8
403	403	403	403	353	352
5.0	4.9	5.2	4.6	5.2	4.6
105	92	104	103	110	98
37	28	35	34	39	29
2080	1712	2019	1983	2185	1803
6.3	5.8	6.4	6.5	6.7	6.0
5.0	4.0	5.0	4.6	5.1	4.2
B	B+	B+	B	B	B+
C+	B	C+	C+	C+	B
105	115	110	105	105	115
18	14	15	19	20	13
14	12	13	14	16	8
-	52	-	60	-	53

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Table 3.--Cotton, American upland medium staple: Quality characteristics by production areas, crop of 1966--Continued

Area	Southeastern			
State	Florida	Georgia		
Production area	Jay	Blakely	Camilla	Colquitt
Predominant variety	Car. Queen	Coker 100	Car. Queen	Mxd-Mnly
Percentage of variety at gin	90	85	98	Auburn 56
Triweekly sampling	Second	Second	Second	Second
RAW COTTON QUALITY				
Grade .....designation	SLM	LM	LM	SLM
Staple length .....inches	1-1/32	1-1/32	1-1/32	1-1/32
Fiber length (Digital Fibrograph):				
2.5% span length.....inches	1.03	1.06	1.05	1.00
Uniformity ratio (50/2.5).percent	47	48	46	45
Fiber fineness and maturity:				
Micronaire .....reading	5.3	5.3	4.9	4.6
Fiber strength and elongation:				
Zero gauge strength .....1,000 psi	85	80	81	77
Zero gauge strength .....grams/tex	42.0	39.6	40.3	38.0
⅛-inch gauge strength ..grams/tex	22.8	23.6	21.7	19.6
⅛-inch gauge elongation...percent	4.5	5.8	6.1	6.8
Shirley Analyzer:				
Visible waste .....percent	1.3	3.0	2.6	1.6
Total visible & invisible..percent	1.9	3.7	3.6	2.8
Color of raw cotton:				
Reflectance .....Rd	73.0	71.0	69.5	72.0
Yellowness .....+b	8.9	8.6	8.8	8.7
Code .....number	403	453	453	403
PROCESSING RESULTS:				
Picker and card waste.....percent	7.8	7.0	6.6	5.6
Yarn skein strength:				
22s (26.8 tex) .....pounds	98	100	96	87
50s (11.8 tex) .....pounds	31	33	30	27
Average break factor.....	1853	1925	1806	1632
Yarn skein elongation:				
22s (26.8 tex) .....percent	5.9	6.0	5.8	6.2
50s (11.8 tex) .....percent	4.1	4.6	4.1	4.6
Yarn appearance:				
22s (26.8 tex) .....grade	B	B	B	B
50s (11.8 tex) .....grade	C+	C+	C+	C+
Average yarn appearance.....index	105	105	105	105
Yarn imperfections: 1/				
22s (26.8 tex) .....number	18	21	21	29
50s (11.8 tex) .....number	16	13	15	24
Spinning potential...2/..Yarn number	-	-	-	-

1/ Level for previous years x 0.6 = 1966 level.
2/ Level for previous years x 1.1 = 1966 level.

Table 3.--Cotton, American upland medium staple: Quality characteristics by production areas, crop of 1966--Continued

Southeastern					
Georgia					So. Carolina
Madison	Soperton	Sylvania	Tennille	Unadilla	Batesburg
Carolina Queen		Coker 100	Carolina Queen		Coker 413
100	100	70	90	100	100
Second	Second	Second	Second	Second	Second
SLMLtSp 1-1/16	SLM 1-1/16	SLMLtSp 1-1/16	LM 1-1/16	SLM 1-1/16	SLM 1-1/8
1.06	1.03	1.11	1.07	1.08	1.14
47	46	44	46	48	44
4.9	4.7	4.4	4.7	5.3	4.0
85	82	80	80	86	89
41.9	40.7	39.4	39.6	42.5	44.0
23.2	22.7	24.1	21.4	23.4	25.4
5.4	5.9	5.4	5.8	5.7	4.5
2.8	1.5	2.3	3.0	1.6	3.5
3.5	1.9	3.3	3.6	2.4	4.1
70.2	71.0	69.0	72.0	71.5	73.0
9.4	8.4	9.0	8.2	8.2	8.2
403	452	453	452	452	402
6.8	5.4	6.6	7.6	5.0	7.4
102	101	106	105	102	129
34	36	38	36	33	47
1972	2011	2116	2055	1947	2594
5.9	5.7	6.2	6.3	5.9	6.5
4.5	4.7	4.9	4.9	4.4	5.0
B	C+	C+	C+	B+	B
C+	C	C	C	C+	C+
105	95	95	95	110	105
15	27	32	29	19	20
12	19	23	19	12	16
-	-	-	-	-	-

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Table 3.--Cotton, American upland medium staple: Quality characteristics by production areas, crop of 1966--Continued

Area	Southeastern			
State	South Carolina			
Production area	Darlington	Eutawville	Mayesville	Pendleton
Predominant variety	Car. Queen	Coker 100	Carolina Queen	
Percentage of variety at gin	100	75	100	100
Triweekly sampling	First	Second	Second	First
RAW COTTON QUALITY				
Grade .....designation	SLM	SLM	SLM	M
Staple length .....inches	1-3/32	1-1/16	1-1/16	1-1/16
Fiber length (Digital Fibrograph):				
2.5% span length.....inches	1.11	1.09	1.10	1.03
Uniformity ratio (50/2.5).percent	46	44	47	48
Fiber fineness and maturity:				
Micronaire .....reading	4.8	4.1	5.1	4.9
Fiber strength and elongation:				
Zero gauge strength .....1,000 psi	84	79	85	87
Zero gauge strength .....grams/tex	41.8	39.3	42.3	43.0
⅛-inch gauge strength ..grams/tex	23.8	21.8	23.9	24.0
⅛-inch gauge elongation...percent	5.4	5.0	4.7	6.4
Shirley Analyzer:				
Visible waste .....percent	2.5	1.8	2.4	2.0
Total visible & invisible..percent	3.1	2.5	3.1	2.9
Color of raw cotton:				
Reflectance .....R_d	70.8	70.7	68.7	75.0
Yellowness .....+b	9.0	8.7	9.4	9.2
Code .....number	453	453	453	353
PROCESSING RESULTS:				
Picker and card waste.....percent	5.5	4.8	5.8	4.9
Yarn skein strength:				
22s (26.8 tex) .....pounds	107	108	108	108
50s (11.8 tex) .....pounds	37	39	38	37
Average break factor.....	2102	2163	2138	2113
Yarn skein elongation:				
22s (26.8 tex) .....percent	6.0	6.4	5.9	5.9
50s (11.8 tex) .....percent	4.6	5.1	4.7	4.7
Yarn appearance:				
22s (26.8 tex) .....grade	C+	C+	B	B+
50s (11.8 tex) .....grade	C	C	C+	B
Average yarn appearance.....index	95	95	105	115
Yarn imperfections: 1/				
22s (26.8 tex) .....number	37	27	25	12
50s (11.8 tex) .....number	29	22	16	9
Spinning potential..2/...Yarn number	69	-	-	63

1/ Level for previous years x 0.6 = 1966 level.
2/ Level for previous years x 1.1 = 1966 level.

Table 3.--Cotton, American upland medium staple: Quality characteristics by production areas, crop of 1966--Continued

Southeastern :	South Central				
So. Carolina :	Louisiana				
Rembert :	Alexandria :	Arnaudville :	Bonita :	Carencro :	Eunice
McNair 1032 :	Stnvl 213 :	Mxd-Mnly :	DPL Sm L :	Stnvl 213 :	DPL Sm L
75 :	80 :	Stnvl 7A :	80 :	75 :	95
First :	First :	Second :	First :	Second :	Second
SLM	SLM	M	M	M	SLM
1-1/16	1-1/16	1-1/16	1-3/32	1-1/16	1-1/16
1.08	1.09	1.09	1.10	1.06	1.08
47	45	46	47	47	47
4.9	4.7	4.7	4.9	4.8	4.7
84	81	82	86	79	79
41.8	40.2	40.7	42.7	39.2	39.2
22.5	21.4	20.5	23.2	20.7	21.8
6.6	5.7	5.8	6.2	6.2	6.9
2.8	2.0	1.0	0.8	1.3	1.2
3.6	3.4	2.5	1.6	3.1	2.5
71.5	71.9	76.9	77.2	75.1	73.4
9.0	9.1	8.5	8.5	8.7	8.4
403	403	302	302	352	402
5.5	6.0	5.6	3.5	5.2	5.2
104	98	104	120	99	106
36	33	36	41	32	36
2044	1903	2044	2345	1889	2066
5.9	5.6	6.0	6.5	5.9	6.3
4.7	4.5	4.6	5.1	4.1	4.8
B	B	B+	B+	B+	B+
C+	C+	C+	B	C+	C+
105	105	110	115	110	110
27	26	21	17	15	24
24	17	18	10	12	17
64	57	-	66	-	-

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Table 3.--Cotton, American upland medium staple: Quality characteristics by production areas, crop of 1966--Continued

Area	South Central			
State	Louisiana			Mississippi
Production area	Lk Provdnce	Sicily Isld	St. Joseph	Brooksville
Predominant variety	Stoneville 213		DPL Smooth Leaf	
Percentage of variety at gin	100	80	85	100
Triweekly sampling	First	First	First	First
RAW COTTON QUALITY				
Grade .....designation	SLM	SLM	SLM	M
Staple length .....inches	1-1/16	1-1/16	1-1/16	1-1/16
Fiber length (Digital Fibrograph):				
2.5% span length.....inches	1.10	1.04	1.09	1.05
Uniformity ratio (50/2.5).percent	47	46	47	46
Fiber fineness and maturity:				
Micronaire .....reading	5.0	5.2	5.0	5.3
Fiber strength and elongation:				
Zero gauge strength .....1,000 psi	86	87	85	87
Zero gauge strength .....grams/tex	42.7	43.2	42.2	43.1
⅛-inch gauge strength ..grams/tex	22.6	21.7	22.0	24.3
⅛-inch gauge elongation...percent	5.8	5.4	5.8	6.2
Shirley Analyzer:				
Visible waste .....percent	1.6	1.9	1.4	0.9
Total visible & invisible..percent	3.0	3.2	2.6	1.7
Color of raw cotton:				
Reflectance .....Rd	73.1	72.2	73.8	74.2
Yellowness .....+b	8.5	8.8	9.0	8.9
Code .....number	402	403	353	352
PROCESSING RESULTS:				
Picker and card waste.....percent	5.1	5.0	4.9	4.3
Yarn skein strength:				
22s (26.8 tex) .....pounds	112	107	110	103
50s (11.8 tex) .....pounds	39	34	36	34
Average break factor.....	2207	2027	2110	1983
Yarn skein elongation:				
22s (26.8 tex) .....percent	6.3	5.6	6.2	6.1
50s (11.8 tex) .....percent	4.4	4.4	4.3	4.6
Yarn appearance:				
22s (26.8 tex) .....grade	B+	A	B+	C+
50s (11.8 tex) .....grade	C+	B	C	C+
Average yarn appearance.....index	110	120	105	100
Yarn imperfections: 1/				
22s (26.8 tex) .....number	23	19	23	13
50s (11.8 tex) .....number	13	13	18	14
Spinning potential..2/...Yarn number	64	58	62	59

1/ Level for previous years x 0.6 = 1966 level.
2/ Level for previous years x 1.1 = 1966 level.

Table 3.--Cotton, American upland medium staple: Quality characteristics by production areas, crop of 1966--Continued

South Central						
Mississippi						
Bruce	Greenville	Greenwood		Hollandale	Indianola	
Stoneville 213		DPL Sm L		Stnvl 213	Dix.King II	Stnvl 213
80	100	100	100	90	100	100
First	First	First	First	First	First	First
SLM	M	SLM	SLM	M	SLM	M
1-1/16	1-3/32	1-3/32	1-1/8	1-3/32	1-1/16	1-1/16
1.06	1.09	1.12	1.11	1.14	1.03	1.05
46	46	47	45	46	47	47
4.9	5.2	4.7	4.4	5.1	5.3	5.5
84	90	86	85	87	93	89
41.5	44.7	42.4	42.1	43.3	46.1	44.2
23.4	23.7	22.7	25.0	25.2	23.8	23.7
6.0	4.7	6.4	7.0	4.9	4.2	4.8
1.5	1.3	2.6	2.3	1.5	2.3	1.0
2.0	1.9	3.2	3.0	2.0	3.1	1.5
74.0	76.3	74.0	74.5	75.8	72.2	76.0
8.9	8.9	7.9	8.2	8.5	8.8	8.4
352	302	402	402	352	403	352
4.3	5.4	5.4	5.4	4.9	5.7	4.2
102	103	111	117	112	104	100
35	35	39	42	38	33	31
1997	2008	2196	2337	2182	1969	1875
6.5	6.0	6.2	7.3	6.2	5.3	5.7
4.5	4.6	4.8	5.6	4.7	3.9	4.0
B	B	B	B	B	B	B
C+	C+	C+	C+	C+	C+	C+
105	105	105	105	105	105	105
19	16	17	18	23	16	24
16	16	16	16	18	13	16
60	62	67	73	63	57	53

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Table 3.--Cotton, American upland medium staple: Quality characteristics by production areas, crop of 1966--Continued

Area	South Central			
State	Mississippi			
Production area	Jackson	Sunflower	Tunica	WaterValley
Predominant variety	DPL Sm L	Stnvl 213	Coker 413	DPL Sm L
Percentage of variety at gin	100	100	100	95
Triweekly sampling	First	First	First	First
RAW COTTON QUALITY				
Grade .....designation	M	SLM	SLM	M
Staple length .....inches	1-1/16	1-1/16	1-1/8	1-1/16
Fiber length (Digital Fibrograph):				
2.5% span length.....inches	1.05	1.07	1.14	1.07
Uniformity ratio (50/2.5).percent	46	48	46	47
Fiber fineness and maturity:				
Micronaire .....reading	5.0	5.8	4.2	5.1
Fiber strength and elongation:				
Zero gauge strength .....1,000 psi	80	90	89	84
Zero gauge strength .....grams/tex	39.5	44.3	44.0	41.4
⅛-inch gauge strength ..grams/tex	22.5	22.2	26.4	23.0
⅛-inch gauge elongation...percent	6.7	4.7	5.3	7.3
Shirley Analyzer:				
Visible waste .....percent	1.4	2.0	2.3	1.1
Total visible & invisible..percent	2.0	2.6	3.2	1.7
Color of raw cotton:				
Reflectance .....R_d	77.7	73.5	75.5	76.0
Yellowness .....+b	8.6	8.4	8.1	8.4
Code .....number	302	402	402	352
PROCESSING RESULTS:				
Picker and card waste.....percent	4.3	5.2	5.6	4.3
Yarn skein strength:				
22s (26.8 tex) .....pounds	106	101	124	106
50s (11.8 tex) .....pounds	37	32	44	36
Average break factor.....	2091	1911	2464	2066
Yarn skein elongation:				
22s (26.8 tex) .....percent	6.5	5.6	6.5	6.6
50s (11.8 tex) .....percent	5.2	4.1	5.2	5.1
Yarn appearance:				
22s (26.8 tex) .....grade	B+	B+	C+	B
50s (11.8 tex) .....grade	C+	B	C	C+
Average yarn appearance.....index	110	115	95	105
Yarn imperfections: 1/				
22s (26.8 tex) .....number	11	13	27	18
50s (11.8 tex) .....number	10	8	20	11
Spinning potential...2/..Yarn number	61	52	73	62

Continued on page 15

1/ Level for previous years x 0.6 = 1966 level.
2/ Level for previous years x 1.1 = 1966 level.

Table 3.--Cotton, American upland medium staple: Quality characteristics by production areas, crop of 1966--Continued

Area	So. Central:	Southwestern		Western
State	Tennessee :	Central Texas	:	Arizona
Production area	Jackson :	Bryan :	Navasota :	Yuma
Predominant variety	Dix.King II:	Stnvl 213 :	DPL Smooth Leaf	
Percentage of variety at gin	90 :	95 :	100 :	98
Triweekly sampling	First :	First :	Second :	First
RAW COTTON QUALITY				
Grade .....designation	SLM	SLMLtSp	SLM	SLM
Staple length .....inches	1-1/16	1-1/16	1-1/16	1-1/16
Fiber length (Digital Fibrograph):				
2.5% span length.....inches	1.08	1.06	1.09	1.08
Uniformity ratio (50/2.5).percent	48	46	46	44
Fiber fineness and maturity:				
Micronaire .....reading	4.6	5.0	4.3	4.9
Fiber strength and elongation:				
Zero gauge strength .....1,000 psi	81	85	80	84
Zero gauge strength .....grams/tex	40.3	42.2	39.7	41.7
⅛-inch gauge strength ..grams/tex	21.9	22.7	22.6	21.6
⅛-inch gauge elongation...percent	6.1	6.3	7.4	6.3
Shirley Analyzer:				
Visible waste .....percent	1.7	1.4	1.5	1.5
Total visible & invisible..percent	2.1	2.6	3.0	2.8
Color of raw cotton:				
Reflectance .....Rd	74.7	70.1	74.2	74.1
Yellowness .....+b	8.6	9.5	8.1	8.1
Code .....number	402	403	402	402
PROCESSING RESULTS:				
Picker and card waste.....percent	4.9	5.4	6.0	5.6
Yarn skein strength:				
22 s (26.8 tex) .....pounds	108	104	109	100
50 s (11.8 tex) .....pounds	38	35	38	31
Average break factor.....	2138	2019	2149	1875
Yarn skein elongation:				
22 s (26.8 tex) .....percent	6.4	5.3	6.4	5.8
50 s (11.8 tex) .....percent	5.0	3.9	4.7	3.9
Yarn appearance:				
22 s (26.8 tex) .....grade	B	B+	B+	B+
50 s (11.8 tex) .....grade	C+	B	C	C
Average yarn appearance.....index	105	115	105	105
Yarn imperfections: 1/				
22 s (26.8 tex) .....number	23	13	20	28
50 s (11.8 tex) .....number	17	9	12	20
Spinning potential...2/..Yarn number	67	59	-	55

1/ Level for previous years x 0.6 = 1966 level.
2/ Level for previous years x 1.1 = 1966 level.

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